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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/939,516 | 08/24/2001 | John B. Harvey | 26346-1 | 2442 |

22493 7590 07/16/2003

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EXAMINER

FERGUSON, MICHAEL P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3679

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,516

Applicant(s)

HARVEY, JOHN B.

Examiner

Michael P. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

2. Claim 18 is objected to because of the following informalities:

Claim 18 (line 2) recites "rectangular land". It should recite --the rectangular land--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Solberg et al. (USPN 5,085,535).

As to claim 10, Solberg et al. discloses a slitter apparatus having:

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a first semi-circular member **26** having a first mating surface;

a second semi-circular member **28** having a second mating surface engageable with the first mating surface to form a cylindrical body;

a rectangular land **40** projecting from the first mating surface of the first semi-circular member wherein the land has no more than one planar surface substantially parallel to the first mating surface; and

a rectangular recess **58** protruding into the second mating surface of the second semi-circular member wherein the recess has no more than one planar surface substantially parallel to the second mating surface and wherein engagement of the land with the recess provides both axial and radial alignment of the first semi-circular member with the second semi-circular member (Figures 1-4).

As to claim 17, Solberg et al. discloses a slitter apparatus wherein a rectangular land **40** is centrally disposed on a first mating surface and a rectangular recess **58** is centrally disposed in a second mating surface (Figure 4).

As to claim 18, Solberg et al. discloses a slitter apparatus wherein a rectangular land **40** is integral with a first mating surface (Figure 2).

As to claim 19, Solberg et al. discloses a slitter apparatus having:

a first semi-circular member **26** having a first mating surface;

a second semi-circular member **28** having a second mating surface engageable with the first mating surface to form a cylindrical body;

a land **40** projecting from the first mating surface wherein the land is centrally disposed inward from the outer edges **16,18** of the first mating surface such that upon

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engagement of the first semi-circular member with the second semi-circular member, the land is hidden inside of the cylindrical body;

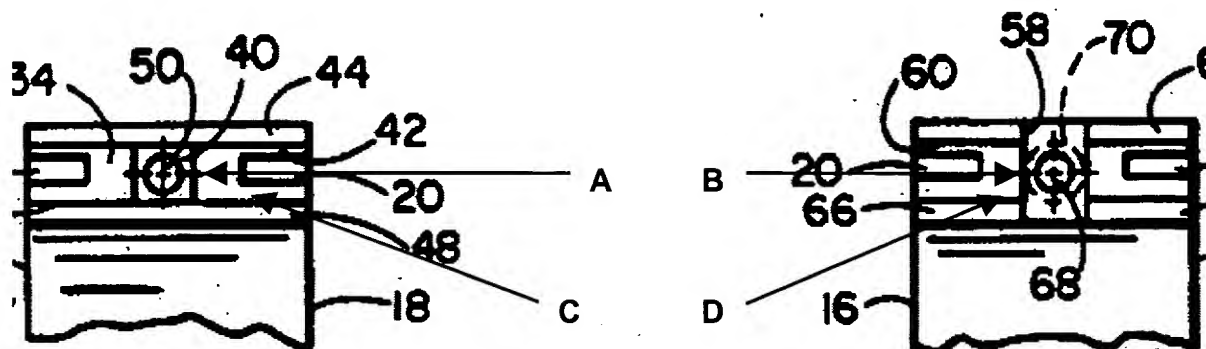
a recess **58** projecting into the second mating surface wherein the recess is centrally disposed inward from the outer edges **16,18** of the second mating surface such that upon engagement of the first semi-circular member with the second semi-circular member, the recess is hidden inside of the cylindrical body;

wherein the land has a first pair **A** (Figures 5 and 6 reprinted below with annotations) of planar alignment surfaces;

wherein the recess has a second pair **B** of planar alignment surfaces complimentary to the first pair of planar alignment surfaces wherein contact of the first pair of planar alignment surfaces with the second pair of planar alignment surfaces when the land is received in the recess provides axial alignment of the first semi-circular member with the second semi-circular member;

wherein the land has a third pair **C** of planar alignment surfaces; and

wherein the recess has a fourth pair **D** of planar alignment surfaces complimentary to the third pair of planar alignment surfaces wherein contact of the third pair of planar alignment surfaces with the fourth pair of planar alignment surfaces when the land is received in the recess provides radial alignment of the first semi-circular member with the second semi-circular member (Figures 1-6).



Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4, 5, 8, 9, 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solberg et al. in view of Howard (USPN 4,964,842).

As to claim 1, Solberg et al. discloses a slitter apparatus having:

a first semi-circular member **26** having first and second mating surfaces;

a second semi-circular member **28** having first and second mating surfaces

complimentary to the opposed first and second mating surfaces of the first member;

wherein the first member is engageable with the second member to form on engagement a cylindrical body;

a first rectangular land **40** having a plurality of sidewall surfaces projecting from one of the first or second mating surfaces of the first member;

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a first rectangular recess **58** having a plurality of sidewall surfaces projecting into one of the first or second mating surfaces of the second member;

wherein the first rectangular recess is interengageable with the first rectangular land to provide axial and radial alignment of the first member with the second member (Figures 1-4).

Solberg et al. fails to disclose a slitter apparatus wherein the corners formed between adjacent sidewall surfaces of a first rectangular land are radiused.

Howard teaches an apparatus having:

a first semi-circular member **13** having first and second mating surfaces;

a second semi-circular member **15** having first and second mating surfaces complimentary to the opposed first and second mating surfaces of the first member;

wherein the first member is engageable with the second member to form on engagement a cylindrical body;

a first rectangular land **61,63** having a plurality of sidewall surfaces projecting from one of the first or second mating surfaces of the first member wherein the corners formed between adjacent sidewall surfaces of the first rectangular land are radiused;

a first rectangular recess **65,67** having a plurality of sidewall surfaces projecting into one of the first or second mating surfaces of the second member;

wherein the first rectangular recess is interengageable with the first rectangular land to provide axial and radial alignment of the first member with the second member; the radiused corners of the land providing for easier alignment of and insertion of the land into the recess (Figures 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. to have a first rectangular land having radiused corners as taught by Howard to provide for easier alignment of and insertion of the land into a corresponding recess.

Moreover, the applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

As to claim 2, Howard teaches an apparatus wherein corners formed between adjacent sidewall surfaces of a first rectangular recess **65,67** are radiused (Figure 2).

As to claim 4, Howard teaches an apparatus wherein corners formed between adjacent sidewall surfaces of a first rectangular recess **65,67** are radiused (Figure 2).

Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein corners formed between adjacent sidewall surfaces of a first rectangular recess are chamfered.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have chamfered corners formed between adjacent sidewall surfaces of a first rectangular recess as such practice is a design consideration within the skill of the art.

As to claim 5, Solberg et al. discloses a slitter apparatus having:

a second rectangular land **40** having a plurality of sidewall surfaces projecting from the other of a first or second mating surfaces of a first member **26**;

a second rectangular recess **58** having a plurality of side wall surfaces projecting into the other of a first or second mating surfaces of a second member **28**;

wherein the second rectangular recess is interengageable with the second rectangular land to provide axial and radial alignment of the first member with the second member (Figures 1-4).

As to claim 8, Solberg et al. discloses a splitter apparatus wherein a first rectangular land **40** is centrally disposed inward from the outer edges **16,18** of a mating surface from which it projects and wherein a first rectangular recess **58** is centrally disposed inward from the outer edges **16,18** of a mating surface into which it projects such that upon engagement of the first member with the second member, the first rectangular land and the first rectangular recess are completely enclosed inside of the cylindrical body (Figures 1 and 4).

As to claim 9, Solberg et al. discloses a splitter apparatus wherein a first land **40** is integral with a mating surface from which it projects (Figure 4).

As to claim 11, Solberg et al. fails to disclose a splitter apparatus wherein a land has a plurality of sidewall surfaces projecting from a first mating surface wherein the corners formed between adjacent sidewall surfaces of the rectangular land are chamfered.

Howard teaches an apparatus wherein a land **61,63** has a plurality of sidewall surfaces projecting from a first mating surface wherein the corners formed between

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adjacent sidewall surfaces of the rectangular land are radiused; the radiused corners of the land providing for easier alignment of and insertion of the land into a corresponding recess (Figures 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. to have a land having radiused corners as taught by Howard to provide for easier alignment of and insertion of the land into a corresponding recess.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have chamfered corners formed between adjacent sidewall surfaces of a land as such practice is a design consideration within the skill of the art.

As to claim 12, Howard teaches an apparatus wherein a recess **65,67** has a plurality of side wall surfaces projecting into a second mating surface wherein the corners formed between adjacent side wall surfaces of the rectangular recess are radiused (Figure 2).

Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein corners formed between adjacent sidewall surfaces of a rectangular recess are chamfered.

The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have chamfered corners formed between adjacent sidewall surfaces of a rectangular recess as such practice is a design consideration within the skill of the art.

As to claim 14, Solberg et al. fails to disclose a slitter apparatus wherein a land has a plurality of sidewall surfaces projecting from a first mating surface wherein the corners formed between adjacent sidewall surfaces of the rectangular land are radiused.

Howard teaches an apparatus wherein a land **61,63** has a plurality of sidewall surfaces projecting from a first mating surface wherein the corners formed between adjacent sidewall surfaces of the rectangular land are radiused; the radiused corners of the land providing for easier alignment of and insertion of the land into a corresponding recess (Figures 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. to have a land having radiused corners as taught by Howard to provide for easier alignment of and insertion of the land into a corresponding recess.

Moreover, The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

As to claim 15, Howard teaches an apparatus wherein a recess **65,67** has a plurality of sidewall surfaces projecting into a second mating surface wherein the corners formed between adjacent sidewall surfaces of the rectangular recess are radiused (Figure 2).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Solberg et al. in view of Howard as applied to claim 1 above, and further in view of Blanchfield et al. (USPN 5,531,536).

As to claim 7, Solberg et al. discloses a splitter apparatus having:

a second rectangular land **40** having a plurality of sidewall surfaces projecting from the other of a first or second mating surface of a first member **26**;

a second rectangular recess **58** having a plurality of sidewall surfaces projecting into the other of a first or second mating surfaces of a second member **28**;

wherein the second rectangular recess is interengageable with the second rectangular land to provide axial and radial alignment of the first member with the second member (Figure 4).

Solberg et al. in view of Howard fails to disclose a splitter apparatus having:

a second rectangular land projecting from the other of a first or second mating surface of a second member; and

a second rectangular recess projecting into the other of a first or second mating surfaces of a second member.

Blanchfield et al. teaches a slitter apparatus having:

a second rectangular land **20** having a plurality of sidewall surfaces projecting from the other of a first or second mating surface of a second member **14**;

a second rectangular recess **24** having a plurality of sidewall surfaces projecting into the other of a first or second mating surfaces of a first member **12**;

wherein the second rectangular recess is interengageable with the second rectangular land to provide axial and radial alignment of the first member with the second member; the location of the second land on the second member and second recess on the first member enabling the first and second members to be interengaged with one another in only one orientation, thus assuring proper assembly of the two members (Figures 1-3, column 1 lines 39-45, column 3 lines 8-14, column 4 lines 10-13).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a slitter apparatus as disclosed by Solberg et al. in view of Howard to have a second rectangular land projecting from the other of a first or second mating surface of a second member; and a second rectangular recess projecting into the other of a first or second mating surfaces of a second member as taught by Blanchfield et al. to enable the first and second members to be interengaged with one another in only one orientation, thus assuring proper assembly of the two members.

Allowable Subject Matter

8. Claims 3, 6, 13 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 3, Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein the radius of each corner formed between adjacent sidewall surfaces of a first rectangular recess is less than the radius of a corresponding corner formed between adjacent sidewall surfaces of a first rectangular land.

As to claim 6, Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein a first rectangular land is interengageable with a first rectangular recess, and wherein the first rectangular land is not interengageable with a second rectangular recess, whereby a first and second semi-circular members may be connected together only in one way to form a cylindrical body.

As to claim 13, Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein the length of a chamfer on each corner formed between adjacent sidewall surfaces of a rectangular recess is less than the length of a chamfer on a corresponding corner formed between adjacent sidewall surfaces of a rectangular land.

As to claim 16, Solberg et al. in view of Howard fails to disclose a slitter apparatus wherein the radius of each corner formed between adjacent sidewall surfaces

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of a rectangular recess is less than the radius of a corresponding corner formed between adjacent sidewall surfaces of a rectangular land.

It would not have been obvious to one having ordinary skill in the art at the time the invention was made to modify a splitter apparatus as disclosed by Solberg et al. in view of Howard to have any of the above mentioned elements as such modifications are neither taught nor suggested by the prior art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to split assemblies:

Souza et al. (USPN 4,570,517), Stauffer et al. (USPN 727,707) and Barnes (USPN 465,552) are cited for pertaining to assemblies having a first semi-circular member having a first land, and having a second semi-circular member having a first recess.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (703)308-8591. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (703)308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9326 for regular communications and (703)872-9327 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1114.

MPF
July 11, 2003



John R. Cottingham
Patent Examiner